

REMARKS

In response to the Office Action dated October 1, 2009, the Assignee respectfully requests reconsideration. To further the prosecution of this application, each of the objections and rejections set forth in the Office Action has been carefully considered and is addressed below. The application is believed to be in condition for allowance.

I. Rejections Over the Prior Art

Each of the independent claims (i.e., claims 1, 9, and 18) is rejected under 35 U.S.C. §103 as purportedly being obvious over Brittan in view of Silverman and Luther, and each of the dependent claims is rejected under §103 over the same combination or further in view of Lu. These rejections are respectfully traversed.

A. Overview of Embodiments

When a long passage is processed by a conventional text-to-speech (TTS) synthesis system, the output can be characterized by some sections of great clarity, with other sections being more difficult to understand due to poor synthesis. (Specification, page 3, lines 5-12). Because a listener of the synthesized speech has to struggle to decipher words in these difficult sections, the listener easily becomes fatigued. (Specification, page 3, lines 12-15). The specification evidences an appreciation that the intelligibility of synthesized speech may be improved by detecting uncommon words in a text that may be difficult to synthesize, and inserting pauses in the output of the synthesized speech of the uncommon words (e.g., before, after, and/or during) to offset the uncommon words from their surrounding speech and/or to lengthen the duration of the uncommon words (Specification, page 3, lines 22-26).

The foregoing summary is provided to assist the Examiner in appreciating various aspects of embodiments of the invention. However, this summary may not apply to each of the independent claims, and the language of the independent claims may differ in material respects from the summary provided above. Thus, the Assignee respectfully requests that careful consideration be given to the language of each of the independent claims and that each be addressed on its own merits, without relying on the summary provided above. In this respect, the Assignee does not rely

on the summary provided above to distinguish any of the claims over the prior art. Rather, the Assignee relies only upon the arguments provided below.

B. The Reason Alleged in the Office Action for Purportedly Modifying a Hypothetical System of Brittan and Silverman Based Upon Luther is Unsupported, so that the Office Action Fails to Establish a Prima Facie Case of Obviousness

The Office Action concedes that “Neither Brittan nor Silverman explicitly disclose where the spelled out portions of the uncommon word are pronounced” (Office Action, page 4), but asserts that Luther discloses giving the user the option of spelling out or pronouncing uncommon words and concludes that:

It would have been obvious to one with ordinary skill in the art at the time of the invention to have used Luther’s disclosure to either spell out or pronounce Silverman’s synthesized word, thereby either spelling out or pronouncing the portions separated by pauses, in order to provide a versatile system where a user is able to select whether uncommon words are spelled out or pronounced by a text-to-speech system. (See Luther, col. 5, lines 4-6).

The Assignee respectfully disagrees, as the cited section of Luther teaches nothing beyond what is already disclosed in Brittan and Silverman, so that one of skill in the art would not have been motivated by the cited section of Luther to modify in any way the hypothetical system that one of ordinary skill in the art allegedly would have arrived at based upon the teachings of Brittan and Silverman. Silverman itself specifically teaches that a user may have the option of specifying whether to spell out or pronounce words (see e.g., col. 25, lines 20-23: “This, of course, may be done at the request of the user, although automatic institution of spelling may be useful.”).

In view of the foregoing, the cited section of Luther teaches nothing beyond what is already disclosed in Silverman, so that the assertion in the Office Action that one of ordinary skill in the art would have been motivated by the teachings of Luther to make any modification whatsoever to a Brittan/Silverman system is entirely unsupported. Therefore, the Office Action fails to establish a *prima facie* case of obviousness based upon the alleged combination of Brittan, Silverman and Luther, such that the rejection of all the claims under §103 as being purportedly obvious over a combination including these three references is improper and should be withdrawn.

C. *Even if Combined, the Teachings of Brittan, Silverman and Luther Fail to Teach all of the Limitations in any of the Independent Claims*

1. Independent Claim 1 and The Claims Depending Therefrom

Claim 1 is directed to a method of improving the intelligibility of speech output by a speech synthesizer, comprising, *inter alia*, acts of outputting synthesized speech by a speech synthesizer by inserting a pause within the output of the synthesized speech of an uncommon word to increase the duration of the uncommon word by pronouncing the uncommon word in at least two pronounced portions separated by the pause.

None of the three references relied upon in the rejection remotely teach or suggest inserting a pause within the output of the synthesized speech of an uncommon word to increase its duration by pronouncing the uncommon word in at least two pronounced portions separated by the pause. Therefore, no combination of the teachings of Brittan, Silverman and Luther could remotely teach or suggest this limitation of claim 1.

As discussed in the prior response, Silverman, which is the only reference relied upon by the Examiner that teaches inserting a pause in a synthesized output, teaches doing so during the spelling of word, wherein groups of the individual letters of the word are separated by pauses. (Silverman, col. 12, lines 53-58). That is, the pauses in Silverman separate a **spelling** of a word and not a **pronunciation** of the word.

The teachings of Luther that it is possible for an operator to select whether unknown words are spelled or pronounced does not remotely suggest any modification to Silverman because (1) Silverman already teaches that a user may select whether to spell or pronounce a word, and (2) the cited teachings of Luther relate only to whether a word is to be spelled or pronounced, and ***teach nothing whatsoever about how such spelling or pronunciation is to be performed.*** Stated differently, there is absolutely no support for the assertion in the Office Action that if one of ordinary skill in art followed the teachings of Luther, they would have “used Luther’s disclosure to either spell out or pronounce Silverman’s synthesized word, thereby either spelling out or pronouncing the portions separated by pauses.” (Office Action, page 4). There is simply no teaching or suggestion in either Luther or Silverman that when a word is to be pronounced, that

portions thereof be separated by pauses. Thus, the Office Action's assertion that one of skill in the art would have arrived at a system that inserts a pause within the output of synthesized speech by pronouncing a word in at least two pronounced portions is entirely unsupported.

Claim 1 distinguishes over the cited art of record for this addition reason. Therefore, it is respectfully asserted that no *prima facie* case of obviousness has been properly established with respect to claim 1, such that the rejection of claim 1 under §103 as purportedly being obvious over Brittan in view of Silverman and Luther is improper and should be withdrawn.

Claims 2-4 and 6 depend from claim 1 and are patentable for at least the same reasons.

2. Independent Claim 9 and The Claims Depending Therefrom

Claim 9 is directed to a system for improving the intelligibility of speech output by a speech synthesizer, comprising at least one processor programmed to insert at least one pause within the output of the synthesized speech of an uncommon word to increase the duration of the uncommon word by pronouncing the uncommon word in at least two pronounced portions separated by the pause.

As should be appreciated from the foregoing, no combination of Brittan, Silverman and Luther teaches a system as recited in claim 9. Therefore, it is respectfully asserted that no *prima facie* case of obviousness has been established with respect to claim 9, and it is requested that the rejection thereof under §103 be withdrawn.

Claims 10-12 and 14 depend from claim 9 and are patentable for at least the same reasons.

3. Independent Claim 18 and The Claims Depending Therefrom

Claim 18 is directed to a computer-readable medium encoded with a plurality of instructions that, when executed, perform a method comprising acts of, *inter alia*, outputting synthesized speech by inserting a pause within the synthesized speech of an uncommon word to increase the duration of the uncommon word by pronouncing the uncommon word in at least two pronounced portions separated by the pause.

As should be appreciated from the foregoing, no combination of Brittan, Silverman and Luther teaches or suggests such a computer-readable medium. Therefore, it is respectfully asserted

that no *prima facie* of obviousness has been established with respect to claim 18, and it is requested that the rejection thereof under §103 be withdrawn.

Claims 19, 20 and 22 depend from claim 18 and are patentable for at least the same reasons.

II. General Comments on Dependent Claims

Since each of the dependent claims depends from a base claim that is believed to be in condition for allowance, for the sake of brevity, the Assignee believes that it is unnecessary at this time to argue the further distinguishing features of the dependent claims. However, the Assignee does not necessarily concur with the interpretation of the dependent claims as set forth in the Office Action, nor does the Assignee concur that the basis for rejection of any of the dependent claims is proper. Therefore, the Assignee reserves the right to specifically address the further patentability of the dependent claims in the future.


CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Assignee hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. N0484.70764US00.

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Respectfully submitted,
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